

The commencement of the series of special guide-books to this department has been made by the production of the 'Guide to the Collection of Fossil Fishes,' embracing a sketch of the classification of fishes adopted in the arrangement of the Museum, with notices of the more remarkable forms of fossil fishes and of the habits of some of their living allies. This little book is profusely illustrated with woodcut figures.

The Keepers of the Zoological and Botanical Departments have issued as yet no general guides to the treasures under their charge; but the former has commenced the publication of the special series in the form of an excellent guide to the collection of Mammalia. It is divided into three parts, corresponding to the galleries in which the objects are exhibited. The first section deals with the stuffed specimens, and treats of the creatures represented from the natural-history and systematic point of view, indicating very briefly their general characteristics, habits, relations (in the past as well as at the present day), and especially their geographical distribution. The second part is descriptive of the Mammalian portion of the osteological collection; while the third is devoted to the true Cetacea, which are placed apart on account of the gigantic size of many of their representatives, and deals with both their natural history and their osteological structure. This last section is the work of the Director of the Museum, Prof. Flower; the other two have been drawn up by the Keeper, Dr. Günther, with the assistance of Mr. Oldfield Thomas. The Mammalian guide contains a considerable number of good illustrations scattered through the text, and is also provided with plans showing the mode of arrangement of the galleries.

If we compare these two guide-books in no invidious spirit it is impossible not to award the palm to the second of them. Its authors have been allowed for some reason to have much better print, much better paper, and much more of it on which to disport themselves than has fallen to Dr. Woodward's lot; and if we add to this that with more space their subject is smaller, and that it lends itself much more readily to popular treatment than any class of fossils whatever, it will be no matter of wonder if the Guide to the Mammalia prove to be the more successful work of the two. Each of them, however, is excellent in its own way, and a series of such guides will place our great national collection on a footing of usefulness such as can be claimed for no other museum in the world.

PROCEEDINGS OF LEARNED SOCIETIES.

GEOLOGICAL SOCIETY.

February 25, 1885.—Prof. T. G. Bonney, D.Sc., LL.D., F.R.S.,
President, in the Chair.

The following communications were read:—

1. "On a Dredged Skull of *Ovibos moschatus*." By Prof. W. Boyd Dawkins, M.A., F.R.S., F.G.S.

As some doubts have been expressed as to whether a skull of

Ovibos moschatus, described by the author in a previous communication to the Society, had been derived from the Forest bed, he first quoted the opinion of Mr. Clement Reid, that that specimen really came from the bed in question, and then proceeded to describe a second imperfect skull of the same animal in the University Museum of Zoology and Comparative Anatomy at Cambridge. The trace of red sandy matrix still remaining and the impregnation with iron peroxide showed that this also had been derived from the Forest bed, whilst the presence of marine Polyzoa on the surface and in cracks was considered to prove that the fragments in question had lain at the bottom of the sea, and the sharpness of the angles forbade the supposition that it had been rolled on a beach. The writer inferred that the skull had been dredged, and that it had been originally derived from cliffs near the Dogger Bank before the coast-line had been cut back to its present position. The fragments consisted of the coronal and frontal portions of the skull with the horn-cores and right orbit. It seems of unusual thickness, and the author briefly described its leading peculiarities and measurements.

2. "Fossil Chilostomatous Bryozoa from Aldinga and the River-Murray Cliffs, South Australia." By Arthur Wm. Waters, Esq., F.G.S.

The 73 fossils described in the present paper were collected by Professor Ralph Tate, and, with few exceptions, are from Aldinga and the River-Murray Cliffs, Australia.

This collection again furnishes interesting cases of species growing in both the *Eschara* and the *Lepralia* form; but the chief interest is in a number of specimens which grow in a "cupulata" manner, thus in the mode of growth resembling *Lunulites*. Attention was again called to the fact that though the shape and nature of the zoöcial avicularia (onychoceclaria) are characters of the greatest value, yet their presence or absence cannot be made a specific distinction, as there are a large number of cases where specimens are found with none or only a few such avicularia, whereas on other specimens of the same species, collected under similar circumstances, they may occur abundantly over the whole colony, or in parts of the colony, in large numbers.

In the 'Challenger' Report, Mr. Busk refers to a slender process rising from the middle of the base of the avicularian mandible, and names it "columella." This he considers only occurs in one division of the *Cellepora*, and in this division only in those belonging to the southern hemisphere. This was shown to be by no means the case, as it is found in the mandibles of *Cellepora sardonica* from the Mediterranean, in two other common Mediterranean *Cellepora* &c. In many species there is a denticle in this position rising from the calcareous bar which divides the avicularium. This denticle occurs in various genera and species, and may often be found a useful specific character when examining fossils.

Out of the 220 species now described in this series of papers, just about one half are now known living.

The species noticed in this paper were 73 in number, referred by the author to the genera *Cellaria*, *Membranipora*, *Micropora*, *Monoporella*, *Steganoporella*, *Cribrilina*, *Mucronella*, *Microporella*, *Lunulites*, *Porina*, *Leprulia*, *Smittia*, *Schizoporella*, *Mastigopora*, *Retepora*, *Rhynchopora*, *Cellepora*, *Lekythopora*, and *Selenaria*. Six species were described as new, namely *Microporella pocilliformis*, *Leprulia confinita*, *Cellepora divisa*, *C. biradiata*, *Schizoporella protensa*, and *Membranipora temporaria*.

MISCELLANEOUS.

On the Discovery of an Impression of an Insect in the Silurian Sandstone of Jurques (Calvados). By M. C. BRONGNIART.

THE author refers to the discovery by Prof. Lindström of a scorpion in Swedish Silurian rocks* as proving the existence of terrestrial air-breathing animals at that early period. Insect-remains had been found in Carboniferous and Devonian rocks, but hitherto in no older deposits. He has received from Prof. Douvillé a fragment of Middle-Silurian Sandstone from Jurques belonging to De Verneuil's collection, which shows the impression of an insect's wing, which, though imperfectly preserved, shows most of the nervures. M. Brongniart describes it as follows:—

“This wing, which measures 35 millim. in length, belonged to a Blattide; the humeral area is broad, and we see in it the superior humeral vein and the inferior humeral vein, which is bifurcate at its extremity; the vitreous or median vein also divided into two branches; the superior and inferior discoidal veins and their very oblique divisions which unite at their extremity, as is the case in certain Blattæ of the present epoch; we can trace the anal vein, which is nearly straight and extends almost to the end of the wing, and also the axillary veins, which are parallel.”

The length of the anal vein and the narrowness of the axillary area distinguish this from all other wings of cockroaches, whether living or fossil, the nearest approach to the fossil among Carboniferous species being made by *Progonoblattina Fritschii*, Heer, and *Gerablattina fascigera*, Scudder. For the species the author proposes the name of *Palæoblattina Douvillei*. As the sandstone of Jurques belongs to the Middle Silurian, this cockroach is of older date than the Scotch and Swedish scorpions.—*Comptes Rendus*, December 29, 1884, p. 1164.

The Royal Society of New South Wales.

The Royal Society of New South Wales has put forward a list of subjects for memoirs, offering its medal and a money-prize of £25 for the best communication in each case, “provided it be of sufficient merit.” The memoirs must contain the results of original research, and the successful ones will be published in the Society's annual

* See ‘Annals’ for January 1885, p. 76.